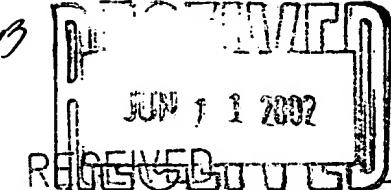


GREENBLUM & BERNSTEIN, P.L.C.  
Intellectual Property Causes  
1941 Roland Clarke Place  
Reston, VA 20191  
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In re application of ~~YASUAKI~~ YUDA et al.

Serial No. : 09/846,390

Box Non-Fee

Group Art Unit : 2821 TECHNOLOGY CENTER 2800

Filed : May 2, 2001

Examiner : Not Yet Assigned

For : DIRECTION OF ARRIVAL ESTIMATOR AND DIRECTION OF ARRIVAL ESTIMATION METHOD

THE COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

RECEIVED

Sir:

JUN 01 2002

Transmitted herewith is a Preliminary Amendment in the above-captioned application.

Technology Center 2800

Small Entity Status of this application under 37 C.F.R. 1.9 and 1.27 has been established by a verified statement previously filed.

A verified statement to establish small entity status under 37 C.F.R. 1.9 and 1.27 is enclosed.

An Information Disclosure Statement, PTO Form 1449, and references cited.

No additional fee is required.

The fee has been calculated as shown below:

Claims After Amendment	No. Claims Previously Paid For	Present Extra	Small Entity		Other Than A Small Entity	
			Rate	Fee	Rate	Fee
Total Claims: 9	*20	0	x 9=	\$	x 18=	\$0.00
Indep. Claims: 3	**3	0	x 40=	\$	x 80=	\$0.00
Multiple Dependent Claims Presented			+135=	\$	+270=	\$0.00
Extension Fees for Month				\$		\$0.00
			Total:	\$	Total:	\$0.00

\*If less than 20, write 20

\*\*If less than 3, write 3

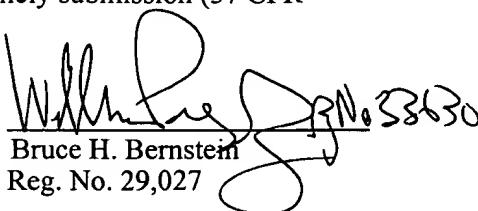
Please charge my Deposit Account No. 19-0089 in the amount of \$\_\_\_\_\_.

N/A A Check in the amount of \$\_\_\_\_\_ to cover the filing/extension fee is included.

The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 19-0089.

Any additional filing fees required under 37 C.F.R. 1.16.

Any patent application processing fees under 37 C.F.R. 1.17, including any required extension of time fees in any concurrent or future reply requiring a petition for extension of time for its timely submission (37 CFR 1.136)(a)(3).

  
Bruce H. Bernstein  
Reg. No. 29,027

P20968.A02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Yasuaki YUDA et al.

Group Art Unit: 2821

Serial No. : 09/846,390

Examiner: None Assigned

Filed : May 2, 2001



DIRECTION OF ARRIVAL ESTIMATOR AND DIRECTION OF ARRIVAL ESTIMATION METHOD

**INFORMATION DISCLOSURE STATEMENT**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Sir:

In accordance with the duty of disclosure under 37 C.F.R. §1.56 and §§1.97-1.98, the Applicant hereby calls the following documents to the Examiner's attention:

“Detection of Direction and Number of Impinging Signals in array Antenna Using Cyclostationarity” by Hiroyuki Tsuji et al., Collection of Institute of Electronics, Information and Communication Engineers, '98/1 Vol. J81-B-II No. 1, pp.19-28, (referred to on page 6 of the specification). An English language translation of (a portion of) Section 3.1 is also provided; and

Japanese Laid-open Patent Publication No. 11-251964, published September 17, 1999.  
An English language abstract of the same is provided.

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AUG - 3 2001

P20968.A02

A copy of the above-noted documents are attached and have been listed on a PTO-1449 Form which is also attached hereto. Accordingly, the Examiner is requested to initial the appropriate spaces on the attached PTO-1449 Form and to return a copy of the Form to the Applicant with the next official communication in the present application to confirm consideration of this document.

Applicant also calls the following copending, commonly assigned documents to the Examiner's attention:

U.S. Patent Application No. 09/272,624 to MIYA et al. , filed on March 19, 1999;

U.S. Patent Application No. 09/413,367 to FUKAGAWA et al. , filed on October 6, 1999; and

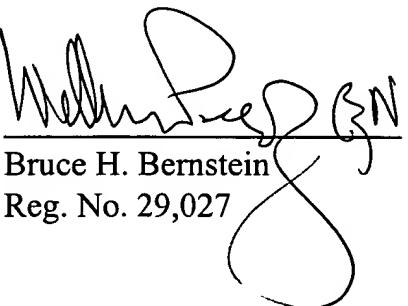
U.S. Patent Application No.09/639,996 to NAKAGAWA et al., filed on August 17, 2000.

In accordance with 37 C.F.R. §1.98(a)(2)(iii), copies of the specification, claims, and drawings of the above-mentioned co-pending applications are attached hereto. The Examiner is, none-the-less, encouraged to review the file wrapper of these U.S. patent applications at the U.S. Patent and Trademark Office. If for any reason the Examiner cannot locate any of the applications, the Applicant will provide any requested materials, if possible.

P20968.A02

Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,  
Yasuaki YUDA et al.

  
\_\_\_\_\_  
Bruce H. Bernstein  
Reg. No. 29,027

July 31, 2001  
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Form PTO-1449				U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. P20968	Serial No. 09/846,390
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)				Applicant Yasuaki YUDA et al.			
				Filing Date May 2, 2001	Group 2821		

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>O I P E</i> AUG 11 2001 PATENT & TRADEMARK OFFICE						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO
1	1 2 5 1 9 6 4	09/17/99	JAPAN				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

1	English Language Abstract of JP 11-251964.		
2	"Detection of Direction and Number of Impinging Signals in array Antenna Using Cyclostationarity" by		
	Hiroyuki Tsuji et al., Collection of Institute of Electronics, Information and Communication Engineers, '98/1		
	Vol. J81-B-II, No. 1, pp. 19-28, and an English language translation of (a portion) Section 3.1.		

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.